



IN REPLY PLEASE REFER TO

State of New Jersey
DEPARTMENT OF TRANSPORTATION

Highway Section
Submissions

Thomas M. Downs
COMMISSIONER

1035 PARKWAY AVENUE
CN 600
TRENTON, NEW JERSEY 08625

March 19, 1991

MEMORANDUM

All Design Units

Subject: Highway Section Submissions for projects on the State Highway System

Typical Section submissions for projects on the State Highway System have not been conforming to the Department's original intent and have been confused with the Typical Sections shown on the plans.

In order to expedite the review process, Typical Section submission requirements have been redefined and terminology changed to distinguish these submissions from the Contract Plan Typical Sections.

Submissions to the Bureau of Roadway Design Standards shall be referred to as "Highway Section Submissions". The requirements for these submissions are quite distinct from Contract Plan Typical Section requirements. Therefore, the attached submission requirements shall be adopted on all projects immediately.

Also attached is a sample transmittal memorandum and an example Highway Section, for reference and guidance on all future submissions.

Memorandum to All Design Units, captioned Typical Section Submission, dated February 22, 1984 is hereby superseded.

Clifford A. Ellis
Director, Div. of Regional Design
(Chief Engineer of Regional Design)

Charles F. Takacs
Director, Div. of Roadway Design
(Chief Engineer of Roadway Design)

Attachments

KCA:CT:FS/ADUMHS

91018 ADU

HIGHWAY SECTION SUBMISSION REQUIREMENTS

The purpose of the Highway Section is to ensure that proposed improvements to a highway segment conform to current standards as described in Section 5 of the Departments' Roadway Design Manual, and where applicable, are consistent with the adjacent highway system and its environment. This intent is different from the "Typical Section" plan sheet required in the construction contract plans. Normally only one or two sections will be necessary for the purpose of showing the general intent of the project.

For projects which originate in the planning process, the Highway Section for the study plans shall be submitted and approved prior to the approval of the 100 or 200 scale graphics. Planning shall submit the Highway Section to the Regional Design Engineer for review and submission to the Bureau of Roadway Design Standards for approval.

For projects which originate in the design process, the Highway Section shall be submitted and approved prior to preparing the Phase 1 plans; for those projects that may not require a Phase 1 submission, the Highway Section submission and approval shall be required before any Department commitments are made or any plans are prepared.

The Project Manager shall be responsible for the submission of an appropriate Highway Section to meet the scope/intent of the project. When project conditions change such as to effect a previously approved Highway Section, the Project Manager shall resubmit a request for a revised Highway Section Approval.

Two (2) sets of Highway Section sketches shall be submitted on 8-1/2" x 11" or 8-1/2" x 14" sheets, whichever is most appropriate for the specific project conditions.

Highway Sections sketches shall include the following:

I. Normal Section

1. Both existing and proposed Highway Section conditions shall be shown. These conditions may be shown as two(2) separate Highway Sections, if they can be referenced to each other (Baseline, Centerline, etc.). Existing labels shall be slanted characters, proposed shall be straight characters, or existing and proposed dimensions labeled as such.
2. Identify existing and proposed lane widths and their corresponding cross slopes and label each "Lane", "Left-turn lane", or "Two-way left-turn lane" as applicable.
3. Identify existing and proposed shoulder widths and their corresponding cross slopes and label each "Shoulder". If the existing shoulder width varies, indicate the maximum and minimum width.
4. Show existing pavement width and type. If concrete pavement exists, indicate the location of all longitudinal joints.
5. Indicate the direction of travel (NB, SB, etc.).

I. Continued...

6. Identify (if applicable) the following roadside details:
 - a. roadside or border dimensions and cross slopes
 - b. existing and proposed guiderail with offset dimensions
 - c. existing and proposed utility pole location(s) with offset(s)
 - d. existing and proposed right of way lines
 - e. proposed sidewalk location and cross slope
 - f. cut and fill slopes
 - g. curb height and face reveal
 - h. berm height and width
7. Where applicable, show and dimension median area and label "Median". If the median width varies, indicate the maximum and minimum width. If median barrier is proposed, identify median barrier location and dimension.
8. An insert shall be used for auxiliary lanes, showing the lane width and cross slope, and labelled "Auxiliary Lane". If a shoulder is to be used adjacent to the auxiliary lane, the shoulder width and cross slope should be indicated and labelled "Shoulder".
9. Where applicable, show and dimension all "C-D Roads", including cross slopes, and label "C-D Road". If multi-lane, identify each lane width and cross slope and label each accordingly.

II. Superelevated Section

1. Same as I. above.
2. Indicate which Figure (4B or 4C) in the NJDOT Roadway Design Manual will be used to determine the rate of superelevation on the project. A separate Highway Section for each curve is not required.
3. Indicate the maximum rollover between lane and shoulder (7% to 8% max.).

III. Interchange Ramp Section

1. Show a minimum and maximum ramp cross slope, minimum ramp width and roadside treatment (see I.6.).
2. If a two (2) lane ramp, identify minimum lane widths, cross slopes and label each "Lane".

IV. Relocated Local Roads, Service Roads, Connectors, etc. - Highway Sections

Highway Sections for those roadways that will be under the Department's jurisdiction shall be submitted and conform to I. and II. above. For those roadways not under the Department's jurisdiction, approval of the proposed section should be obtained from the appropriate local or county officials.

V. General Notes

1. Highway Sections for pavement transition widths and superelevation transition areas are not required.
2. Highway Sections for projects of approximately 1000 feet or less are not required.
3. Highway Sections for 100% Betterment projects are not required unless a change in the lane width(s) and/or cross slope(s) is proposed.
4. The Highway Section submission memo shall include:
 - a. Project Limits by milepost
 - b. Job Number
 - c. A listing of any anticipated substandard features
 - d. Design Speed
 - e. A statement that the "Bicycle Planning and Design Guidelines Certification Questionnaire" has been prepared, reviewed and approved as per Procedure No. 1.409-A.
 - f. Attach a Straight Line Diagram of the project, indicating the project limits.
5. When a request for a revised Highway Section is submitted, a copy of the original submission and comments shall be attached.
6. Scales for Highway Sections are not required.
7. Identification of the proposed pavement design is not required.

Highway Section submissions that do not contain the necessary information will be returned unprocessed.

NEW JERSEY DEPARTMENT OF TRANSPORTATION
MEMORANDUM

TO: _____
Manager, Bureau of Roadway
Design Standards

FROM: _____
Supervising Engineer II
Region _____

SUBJECT: Route __, Section __
M.P. 0.00 to 4.00
Job No. 1234567
Highway Sections

DATE: __/__/__ EXT: 5-____

Enclosed for your review and approval are two (2) sets of Highway Sections for the subject project.

The proposed project provides for resurfacing and guiderail improvements. The design speed on the project will be 60 mph. Design exceptions are anticipated for superelevation and utility poles.

The Bicycle Planning and Design Guideline certification questionnaire has been submitted and approved as per Policy and Procedure No. 1.409-A. A copy of the Bicycle Coordinators response is attached.

Supervising Engineer II

Recommended for Approval:

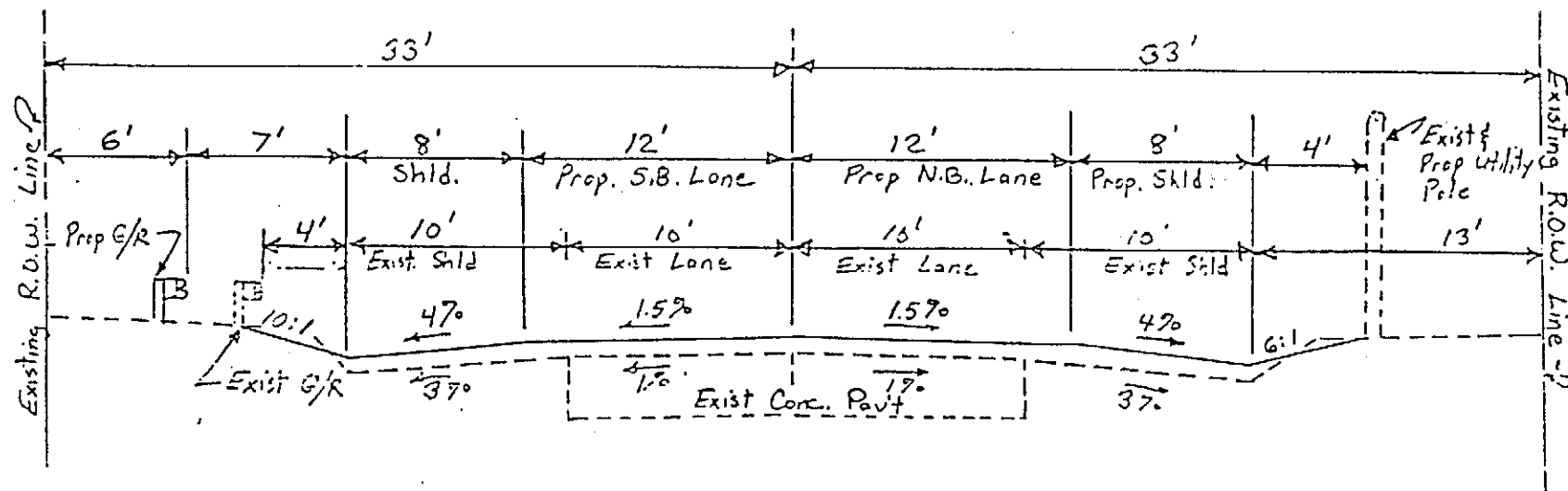
Regional Design Engineer

Date

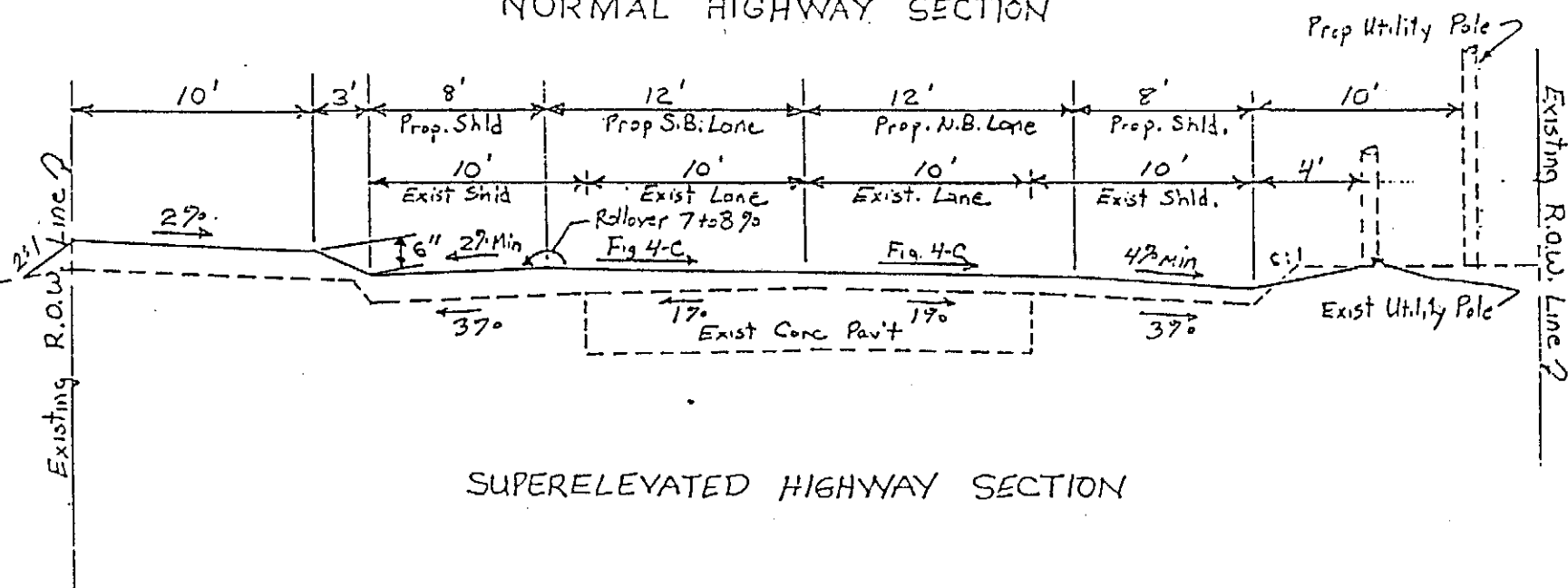
Approved:

Manager, Bureau of Roadway
Design Standards

Date



NORMAL HIGHWAY SECTION



SUPERELEVATED HIGHWAY SECTION

Route
Section
110 00 + 40